REMARKS

Claims 1-28 are pending in this application.

Claims 1-28 have been rejected.

Claims 1, 6, 8, 15, 20, and 22 have been amended as shown above.

Reconsideration and full allowance of Claims 1-28 are respectfully requested.

I. OBJECTIONS TO SPECIFICATION

The Office Action objects to the specification because it does not identify the serial numbers of two related patent applications listed in the specification. The Applicant has amended the specification to include the serial numbers.

The Office Action also objects to the specification because of various informalities noted in the specification. The Applicant has amended the specification to correct the informalities noted in the Office Action.

The Office Action further objects to the specification because it does not define a number of values, including "W, V, J, U, T, Q, P, K, and S." As described below in responding to the § 112 rejection, the variables W, V, J, U, T, Q, P, K, and S in the claims are used to define non-overlapping ranges for values of M or N. The use of ranges for the values of M and N is described in the originally filed application, such as at page 15, line 8 – page 17, line 3 of the application.

The Applicant respectfully requests withdrawal of the objections.

II. REJECTION UNDER 35 U.S.C. § 112

The Office Action rejects Claims 2-9, 11-14, 16-23, and 25-28 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter regarded as the invention. In particular, the Office Action notes that "particular ranges have been set out" but that "it is not clear what the particular range values such as 'W, V, J, U, T, Q, P, K, and S' represent." (*Office Action, Page 2, Paragraph 5*).

The Applicant respectfully notes that the variables W, V, J, U, T, Q, P, K, and S in the claims are used to define non-overlapping ranges for values of M or N. For example, Claim 2 recites setting a value to a minimum level when N is in a range of "$1 \leq N \leq K$" and to a higher level when N is in a range of "$K+1 \leq N \leq P$." In Claim 2, the variables K and P are used to define two non-overlapping ranges for the value of N, one range between 1 and K and another range between K+1 and P.

The Applicant respectfully notes that specific values for W, V, J, U, T, Q, P, K, and S need not be provided to make the claims definite. The Applicant also respectfully notes that the claims are definite without the Applicant defining how the ranges are related.

Based on this, a person of ordinary skill in the art could easily understand the scope of Claims 2-9, 11-14, 16-23, and 25-28. Accordingly, the Applicant respectfully requests withdrawal of the § 112 rejection of Claims 2-9, 11-14, 16-23, and 25-28.

III. REJECTION UNDER 35 U.S.C. § 102

The Office Action rejects Claim 1 under 35 U.S.C. § 102(b) as being anticipated by U.S.

Patent No. 5,339,050 to Llewellyn ("*Llewellyn*"). This rejection is respectfully traversed.

A prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. MPEP § 2131; *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990). Anticipation is only shown where each and every limitation of the claimed invention is found in a single prior art reference. MPEP § 2131; *In re Donohue*, 766 F.2d 531, 534, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985).

Llewellyn recites a phase locked loop (PLL) frequency synthesizer. (*Abstract*). The Office Action asserts that a current DAC (element 320) and a microcontroller (not shown) of *Llewellyn* anticipate a "loop response control circuit" recited in Claim 1. The Applicant respectfully traverses this assertion.

The Office Action does not show that *Llewellyn* anticipates a "loop response control circuit" capable of adjusting a value of a charge pump current "based at least partially on at least one of a range in which [a] first divider value lies and a range in which [a] second divider value lies" as recited in Claim 1. As a result, the Office Action does not show that *Llewellyn* anticipates all elements of Claim 1.

For these reasons, the Office Action has not shown that *Llewellyn* anticipates the Applicant's invention recited in Claim 1. Accordingly, the Applicant respectfully requests withdrawal of the § 102 rejection and full allowance of Claim 1.

IV. REJECTION UNDER 35 U.S.C. § 103

The Office Action rejects Claims 10, 15, and 24 under 35 U.S.C. § 103(a) as being unpatentable over *Llewellyn* in view of U.S. Patent No. 5,420,545 to Davis et al. ("*Davis*"). This rejection is respectfully traversed.

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. MPEP § 2142; *In re Fritch*, 972 F.2d 1260, 1262, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984). Only when a *prima facie* case of obviousness is established does the burden shift to the applicant to produce evidence of nonobviousness. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1985).

A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. *In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or

motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. MPEP § 2142.

Claim 10 depends from Claim 1. As described above, Claim 1 is patentable. As a result, Claim 10 is patentable due to its dependence from an allowable base claim.

Claim 15 recites a "loop response control circuit" that is capable of adjusting a value of a charge pump current "based at least partially on at least one of a range in which [a] first divider value lies and a range in which [a] second divider value lies." As described above, the Office Action does not show that *Llewellyn* discloses, teaches, or suggests these elements of Claim 15. The Office Action also does not show that *Davis* discloses, teaches, or suggests these elements of Claim 15. As a result, the Office Action has not shown that the proposed *Llewellyn–Davis* combination discloses, teaches, or suggests all elements of Claim 15.

For these reasons, the Office Action has not established a *prima facie* case of obviousness against Claim 15 (and Claim 24 depending from Claim 15). Accordingly, the Applicant respectfully requests withdrawal of the § 103 rejection and full allowance of Claims 10, 15, and 24.

V. CONCLUSION

As a result of the foregoing, the Applicant asserts that the remaining claims in the application are in condition for allowance and respectfully requests an early allowance of such claims.

SUMMARY

If any issues arise, or if the Examiner has any suggestions for expediting allowance of this application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at ***wmunck@davismunck.com***.

The Applicant has included a check in the amount of $110.00 to cover the cost of the extension of time fee. The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to National Semiconductor Corporation Deposit Account No. 14-0448.

Respectfully submitted,

DAVIS MUNCK, P.C.

Date: Oct 6, 2003

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